

Exhibit G

van Diggelen 6,937,187 Applied to Representative Japan Radio Co., Ltd., Denso Ten, Panasonic, and Toyota Accused Products

This claim chart compares independent claims 1 and 9 of U.S. Patent No. 6,937,187 (“the ’187 patent”) to the GNSS receiver module CCA-700 manufactured by Japan Radio Co. Ltd. (“JRC”). The CCA-700 includes GNSS processing devices, such as TS0066 and TS0072 manufactured by JRC. At least the following GNSS processing devices are manufactured by Japan Radio Co. Ltd. (“JRC”): TS0066, TS0072, 7DLTS0075, 7DLTS0103 (collectively “Accused JRC chips”). On information and belief, the Accused JRC chips feature the same or substantially similar infringing functionality with respect to the ’187 patent.

On information and belief, JRC’s CCA-700 is similar to JRC’s GNSS receiver modules CCA-705 and CCA-800. The CCA-700, CCA-705, and CCA-800 (collectively “Accused JRC modules”) feature the same or substantially similar infringing functionality with respect to the ’104 patent.



The JRC TS0066 GNSS processing device and CCA-700 GNSS receiver module are incorporated in downstream products, including without limitation, Denso Ten (previously Fujitsu Ten) head units that form Accused Toyota Navigation units, including Corolla Navigation System Kit 261877, Camry Receiver 261876, and Camry Navigation System Receiver 223614. These Accused Toyota Navigation units are found in a variety of Accused Toyota automobiles, including Corolla and Camry models.

The JRC TS0072 GNSS processing device and CCA-700 GNSS receiver module are incorporated in downstream products, including without limitation, Panasonic head units that form Accused Toyota Navigation units, including Highlander Receiver 261875, Sienna Navigation unit 262107, and Avalon Navigation Head unit 261241. These Accused Toyota Navigation units are found in a variety of Accused Toyota automobiles including Highlander, Sienna, and Avalon models.

The JRC 7DLTS0103 GNSS processing devices are incorporated in downstream products, including without limitation, the Toyota Navigation Unit with WiFi Hotspot 86840-06011.

On information and belief, the Accused JRC chips, and head units and automobiles that incorporate the Accused JRC chips, infringe directly, indirectly, and/or under the doctrine of equivalents at least claims 1 and 9 of the ’187 patent.

Claims – U.S. Patent No. 6,937,187 (van Diggelen)	Application of Claim Language to Accused Product
Claim 1	
A method, comprising:	The Accused JRC chips are part of the Denso Ten (previously Fujitsu Ten) and Panasonic head units that are incorporated into the Accused Toyota Navigation units. The Accused Toyota Navigation units include GNSS reception capabilities.
estimating a plurality of states associated with a satellite signal receiver, the plurality of states including a time tag error state, the time tag error state relating a local time associated with said satellite signal receiver and an absolute time associated with signals from a plurality of satellites; and	<p>The Accused JRC chips incorporated into the Accused Toyota Navigation units estimate a plurality of states associated with a satellite signal receiver, the plurality of states including a time tag error state, the time tag error state relating a local time associated with said satellite signal receiver and an absolute time associated with signals from a plurality of satellites.</p> <p>For example, the JRC CCA-700 GNSS receiver module is capable of acquiring time to first fix (TTFF) in 2 seconds.</p>

GPS receiver CCA-700 module	
GPS module	
Features Outline drawing specification Catalog PDF  Official Statement PDF 	
specification	
Reception method	L1 Band (1575.42MHz) GPS (C / A), SBAS, Galileo, quasi-zenith
Receive sensitivity	Acquisition level -155 dBm or less Tracking level -163 dBm or less
Positioning accuracy	2.2m CEP (5.3m 2DRMS)
TTFF	Hot start 2 sec. Cold start 35 sec .
Consumption current	Icc: 42 mA typ. (DC 3.3 V, + 25 ° C, excluding Vant)
data format	NMEA 0183 or binary output

See Ex. 60 - http://www.jrc.co.jp/jp/product/lineup/cca700_module/spec.html (translated to English));

GPS receiver CCA-700 module

GPS module

Features

Dimensions

specification

Catalog PDF



Specification PDF



Features


■ Position in just seconds after power on

■ With car navigation system

Accurate navigation is possible even after coming out from an underground parking lot or multi-level parking lot

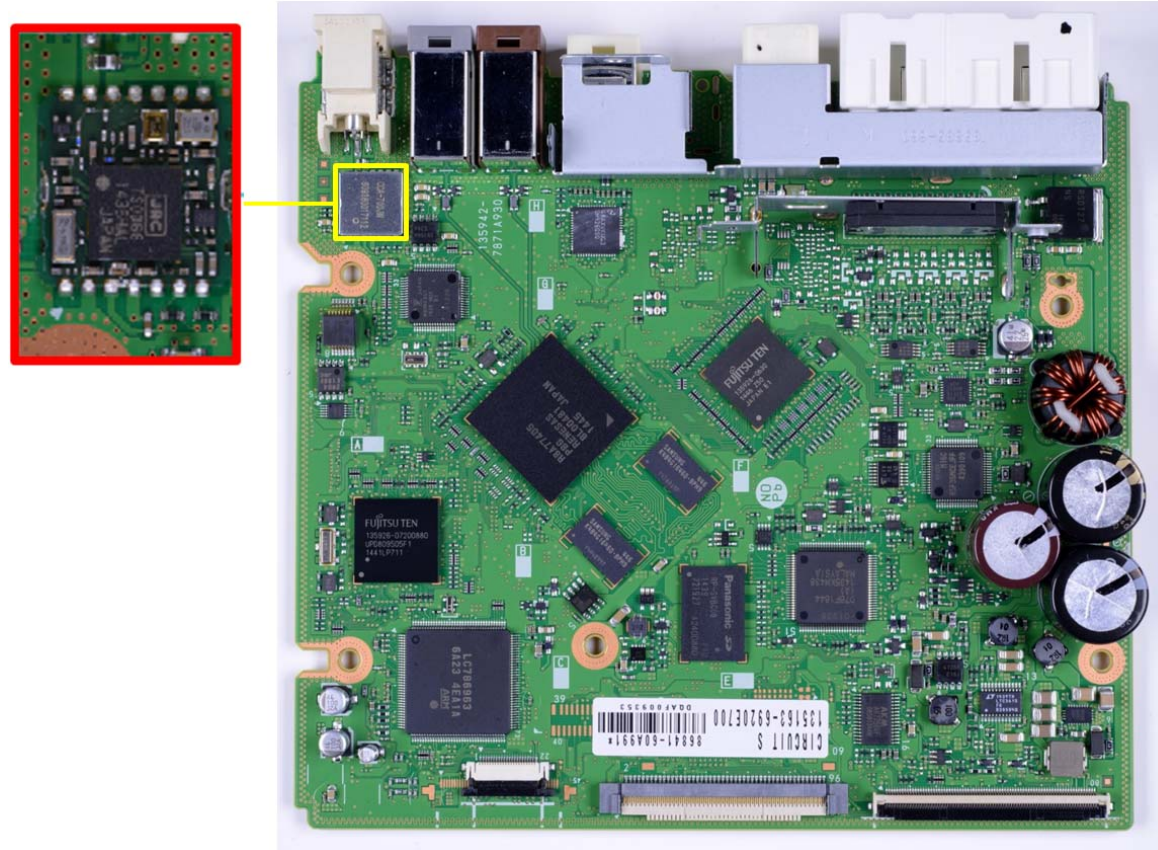
See Ex. 99 - http://www.jrc.co.jp/product/lineup/cca700_module/index.html (translated to English))

In order to achieve the 2 second TTFF in the autonomous mode, the Accused JRC Chips in the Accused Toyota Navigation units must estimate the time error between the local time in the device and the absolute time from the timing data in the satellite signals because it cannot acquire the timing data of the absolute time from the satellite signals in less than 6 seconds. See Ex. 62, Declaration of Steven Goldberg in Support of the Complaint, ¶¶ 13-14.

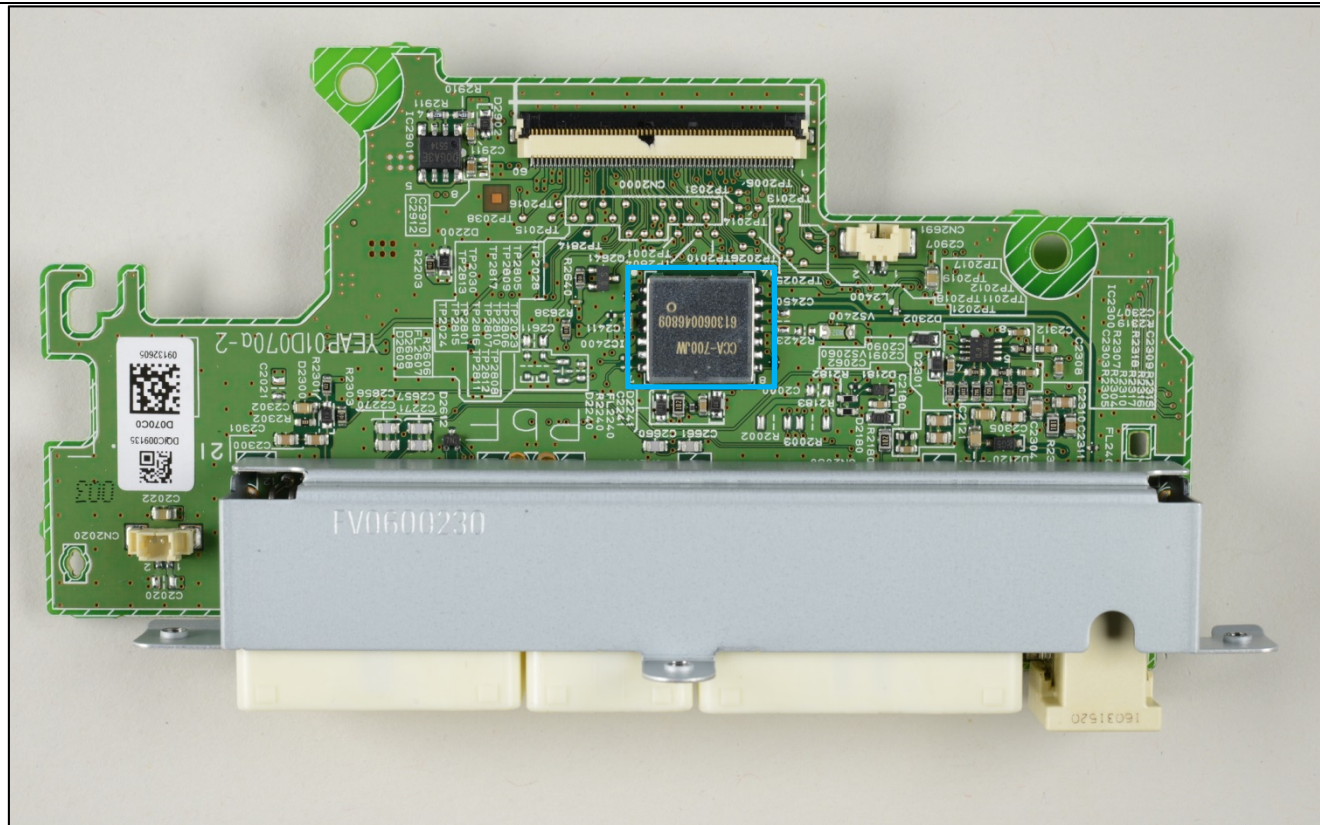
forming a dynamic model relating the plurality of states, the dynamic model operative to compute position of the satellite signal receiver.	The Accused JRC chips incorporated in the Accused Toyota Navigation Units use the time error in a dynamic model that is in turn used to compute the position of the satellite signal receiver that uses the time error estimate.
Claim 9	
A mobile device, comprising:	<p>To the extent the preamble is found limiting, the Accused Toyota Navigation units, including the Accused JRC chips, in the Toyota automobiles are mobile devices.</p>  <p style="text-align: center;">Toyota Multimedia System—front</p>
a satellite signal receiver for	The Accused Toyota Navigation units include a satellite signal receiver for providing pseudoranges that estimate the range of the mobile device to a plurality of satellites.

providing pseudoranges that estimate the range of the mobile device to a plurality of satellites; and



The Accused Toyota Navigation units include a JRC CCA-700 GNSS receiver module (highlighted in yellow) with a JRC TS0066 GNSS processing device (highlighted in red):



The Accused Toyota Navigation units, such as the Highlander receiver 261875, include a JRC CCA-700 GNSS receiver module (highlighted in blue) with a JRC TS0072 GNSS processing device:



The JRC CCA-700 GNSS receiver module is capable of acquiring time to first fix (TTFF) in 2 seconds.

GPS receiver CCA-700 module	
GPS module	
Features Outline drawing specification Catalog PDF  Official Statement PDF 	
specification	
Reception method	L1 Band (1575.42MHz) GPS (C / A), SBAS, Galileo, quasi-zenith
Receive sensitivity	Acquisition level -155 dBm or less Tracking level -163 dBm or less
Positioning accuracy	2.2m CEP (5.3m 2DRMS)
TTFF	Hot start 2 sec. Cold start 35 sec .
Consumption current	Icc: 42 mA typ. (DC 3.3 V, + 25 ° C, excluding Vant)
data format	NMEA 0183 or binary output

See Ex. 60 - http://www.jrc.co.jp/jp/product/lineup/cca700_module/spec.html (translated to English)

GPS receiver CCA-700 module

GPS module

Features

Dimensions

specification

Catalog PDF

PDF

Specification PDF

PDF



Features

Position in just seconds after power on

- With car navigation system

Accurate navigation is possible even after coming out from an underground parking lot or multi-level parking lot

See Ex. 99 - http://www.jrc.co.jp/jp/product/lineup/cca700_module/index.html (translated to English)



In order to achieve the 2 second TTFF in the autonomous mode, the Accused JRC chips in the Accused Toyota Navigation units must estimate the time error between the local time in the device and the absolute time from the timing data in the satellite signals because it cannot acquire the timing data of the absolute time from the satellite signals in less than 6 seconds. See Ex. 62, Declaration of Steven Goldberg in Support of the Complaint, ¶¶ 13-14.

a sequential estimator having a plurality of states associated with the satellite signal receiver, the plurality of states including a time tag error state, the time tag error state relating a local time associated with said satellite signal receiver and an absolute time associate with signals from the plurality of satellites.

The Accused JRC chips include sequential estimator having a plurality of states associated with the satellite signal receiver, the plurality of states including a time tag error state, the time tag error state relating a local time associated with said satellite signal receiver and an absolute time associate with signals from the plurality of satellites.

The JRC CCA-700 has a position accuracy of 2.2m CEP (5.3m 2DRMS). This level of accuracy indicates the use of sequential estimators. *See* Ex. 62, Declaration of Steven Goldberg in Support of the Complaint, ¶ 15.

GPS receiver CCA-700 module GPS module

Features | Shape | **specification** | Catalog PDF  | Official book PDF 

specification

Reception method	L1 Band (1575.42MHz) GPS (C/A), SBAS, Galileo, quasi-zenith
Receive sensitivity	Acquisition level -155 dBm or less Tracking level -163 dBm or less
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See 60 - http://www.jrc.co.jp/jp/product/lineup/cca700_module/spec.html(translated to English)

The JRC CCA-700 module is capable of acquiring time to first fix (TTFF) in 2 seconds.

GPS receiver CCA-700 module	
GPS module	
Features Outline drawing specification Catalog PDF Official Statement PDF	
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Id.

	<div data-bbox="499 191 1062 228"> <h1>GPS receiver CCA-700 module GPS module</h1> </div> <div data-bbox="499 248 1428 326"> <div> Features </div> <div> Dimensions </div> <div> specification </div> <div> Catalog PDF </div> <div> Specification PDF </div> </div> <div data-bbox="821 367 1360 505"> </div> <div data-bbox="722 548 831 581"> <h2>Features</h2> </div> <div data-bbox="722 605 1419 727"> <ul style="list-style-type: none"> Position in just seconds after power on <ul style="list-style-type: none"> With car navigation system <p>Accurate navigation is possible even after coming out from an underground parking lot or multi-level parking lot</p> </div> <div data-bbox="489 781 1785 816"> <p>See Ex. 99 - http://www.jrc.co.jp/product/lineup/cca700_module/index.html (translated to English)</p> </div> <div data-bbox="489 854 1869 1036"> <p>In order to achieve the 2 second TTFF in the autonomous mode, the Accused JRC chips in the Accused Toyota Navigation units must estimate the time error between the local time in the device and the absolute time from the timing data in the satellite signals because it cannot acquire the timing data of the absolute time from the satellite signals in less than 6 seconds. See Ex. 62, Declaration of Steven Goldberg in Support of the Complaint, ¶¶ 13-14.</p> </div>
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